

## CLAIMS

1. A rare-earth sintered magnet, a main phase of which includes an  $R_2T_{14}B$  type compound phase, the magnet comprising:
  - 27 mass% through 32 mass% of R, which is at least one rare-earth element that is selected from the group consisting of Nd, Pr, Tb, and Dy and that always includes at least one of Nd and Pr;
  - 60 mass% through 73 mass% of T, which is either Fe alone or a mixture of Fe and Co;
  - 10 0.85 mass% through 0.98 mass% of Q, which is either B alone or a mixture of B and C and which is converted into B on a number of atoms basis when its mass percentage is calculated;
  - more than 0 mass% through 0.3 mass% of Zr;
  - 15 at most 2.0 mass% of an additive element M, which is at least one element selected from the group consisting of Al, Cu, Ga, In and Sn; and
  - inevitably contained impurities.
- 20 2. The rare-earth sintered magnet of claim 1, comprising

substantially no accumulated phases of Q.

3. The rare-earth sintered magnet of claim 1 or 2,  
wherein the additive element includes Ga, which accounts for  
5 0.01 mass% through 0.08 mass% of the magnet.

4. The rare-earth sintered magnet of claim 3, comprising  
at most 0.95 mass% of Q.

10 5. The rare-earth sintered magnet of claim 4, comprising  
at least 0.90 mass% of Q.

6. The rare-earth sintered magnet of one of claims 1 to  
5, wherein the magnet has a square ratio Hk/HcJ of at least  
15 0.9 in its demagnetization curve.

7. A material alloy for a rare-earth sintered magnet, a  
main phase of which includes an R<sub>2</sub>T<sub>14</sub>B type compound phase, the  
alloy comprising:

20 27 mass% through 32 mass% of R, which is at least one

rare-earth element that is selected from the group consisting of Nd, Pr, Tb, and Dy and that always includes at least one of Nd and Pr;

60 mass% through 73 mass% of T, which is either Fe alone  
5 or a mixture of Fe and Co;

0.85 mass% through 0.98 mass% of Q, which is either B alone or a mixture of B and C;

more than 0 mass% through 0.3 mass% of Zr;

at most 2.0 mass% of an additive element M, which is at  
10 least one element selected from the group consisting of Al,  
Cu, Ga, In and Sn; and  
inevitably contained impurities.

8. The rare-earth alloy of claim 6, comprising  
15 substantially no accumulated phases of Q.

9. The rare-earth alloy of claim 7 or 8, wherein the  
additive element includes Ga, which accounts for 0.01 mass%  
through 0.08 mass% of the magnet.

10. The rare-earth alloy of claim 9, comprising at most 0.95 mass% of Q.